## Remarks

The Office Action rejected claims 1, 3-6, 8 and 9 under \$ 103 based on WO 01/42415 ("Ashcroft et al."), rejected claims 1, 6, 8 and 9 under \$ 102 and/or \$ 103 based on WO 99/03959 ("Weber et al."), rejected claims 3-5, and 7 under \$ 103 based on Weber et al., and rejected claims 1, 3-6, 8 and 9 under \$ 103 based on U.S. patent 5,776,876 ("Garris"). In view of the amendment above and remarks below, reconsideration is respectfully requested.

# Art Rejections

The present amendment incorporates the subject matter of claims 3 and 8 (acid and disinfectant) into claim 1 (canceling claims 3 and 8 to avoid redundancy). Further, it clarifies the nature of the poly D-glucosamine. Also, it takes the resulting claim 7 and then presents it in independent form. It also uses more grammatically appropriate language to describe the surfactant.

Moreover, the cleaners of the present invention are now expressly specified as being capable of inhibiting bacterial growth <u>after</u> cleaning with it. This is the unexpected and surprising residual benefit advantage emphasized at paragraph 27 of the application.

Applicants believe that the cited art does not render the presently claimed invention (now remaining amended claims 1, 4-7 and 9) anticipated or obvious for among other reasons the following:

#### A. WO 01/42415

Ashcroft et al. bears a publication date (June 14, 2001) that is less than one year before Applicants' filing date of October 26, 2001. As such, Applicants reserve the right to consider further whether to swear behind this reference. However, for purposes of this response Applicants will respond as if Ashcroft et al. were prior art.

The Office Action did not apply Ashcroft <u>et al.</u> against claim 7. Thus, independent claim 7 should similarly be considered free of that art.

With respect to amended claims 1, 4-6 and 9, Applicants respectfully contend that the teachings of Ashcroft et al. do not render those claims obvious. For one thing, the Office Action acknowledges that a hard surface chitosan or chitosan salt-containing cleaner having a pH below 7 is not exemplified in the reference. The Office Action instead relies on comments on page 29 of the reference regarding the suitability of low pHs for some formulations. However, that same section indicates that when the compositions of that PCT publication are formulated with surfactants as surface cleaning compositions that it is preferred for there to be a mildly alkaline formulation.

This is a strong teaching away from the pH below 7 when a surfactant is present and the material is for hard surface cleaning. Moreover, that same paragraph teaches even more strongly away from use of a variety of organic acids (e.g. claim 4).

Also, there is no teaching of combined use of a disinfectant in addition to a chitosan type compound and a surfactant in an acidic cleaner.

Apart from these differences, the claims have now been still further amended to focus on the surprising and unexpected <u>residual</u> antimicrobial effect. That is nowhere taught in Ashcroft et al..

### B. WO 99/03959

As Weber et al. is primarily not in English, Applicants have obtained the English language U.S. counterpart (6,362,142), a copy of which is enclosed. First, the Office Action acknowledges that the reference does not mention pH. However, it asserts that the taught compositions would inherently have an acidic pH. Applicants respectfully traverse that finding.

The exemplified compositions were specially designed for dermatological compatibility so as to prevent even particularly sensitive consumers from suffering skin irritation (see column 1, lines 20-24 and column 12 beginning at line 25). The requirement for avoiding skin irritation suffered by even highly sensitive consumers argues against the existence of an acidic pH.

In any event, the Office Action did not apply § 102 against the claim 3 (acid) subject matter and acknowledged on page 6 the lack of teaching of a separate acid. Thus, the above amendment overcomes any anticipation concern  $\underline{\text{vis}}$   $\underline{\text{a}}$   $\underline{\text{vis}}$  this reference.

Moreover, adding a separate acid is directly contrary to a primary goal of the PCT publication, which is to avoid creating skin irritation problems for extremely sensitive persons. Hence, adding such an acid would not be something obvious from this reference.

It should also be noted that the Office Action did not address the claim 8 subject matter (disinfectant - now claim 1 subject matter) in describing the applicability of the reference, even though it applied the reference against that subject matter as well. As will be better appreciated from the English language translation, the reference does not mention disinfectant capability for any ingredient.

Finally, and again, there is no teaching of a residual beneficial antimicrobial activity which lasts even after the cleaning has been completed. This is a surprising and unexpected advantage.

C. U.S. patent 5,776,876

Garris was not applied as against claim 7. Thus, Applicants assume that independent form claim 7 (as now amended) is therefore considered free of that art.

With respect to the other remaining claims:

Garris is directed to filter cleaners. The filter cleaners (as described in column 1 and 6 of this patent) are

for cleaning particulate type filters (e.g. sand), and thus (contrary to the Office Action's finding) are not properly characterized as "hard surface" cleaners.

In any event, the claims now specify a disinfectant, and claim residual antimicrobial effects. This additional subject matter is not taught or suggested by Garris. As noted at paragraph 24 of the present application, biguanides are a class of disinfectants. The main purpose of Garris is to remove biguanide deposits from filters (see the title of that patent). Hence, one would be directed away from adding even more of what would be considered the class of the contaminant to a cleaner designed to remove that type of contaminant.

The incorporation of claim 8 subject matter into claim 1 should therefore be adequately distinguishing by itself. While the Office Action did apply the Garris reference to even claim 8, it did not address the issue of disinfectant capability, much less adding a disinfectant in addition to a surfactant.

In any event, since the main purpose of Garris' filter cleaners was to prevent materials from remaining on the filter, one would not have looked to that reference for ways to create residual effects. Hence, one would find a residual antimicrobial effect to be highly unexpected.

### Conclusion

As such, the above amendments are believed to adequately distinguish the references of record. Claims 1, 4-7 and 9 (as amended) are now believed to be in condition for allowance, and allowance is respectfully requested. No additional fees are believed to be required for entry of this amendment.

However, should any additional fees be needed, please charge Deposit Account No. 17-0055 for the amount of the fees.

Respectfully submitted,

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